

## ABSTRACT

An apparatus and method for embedding and extracting digital watermarks using a blind mode based on wavelet transform which is robust to external attacks while being capable of minimizing a degradation in picture quality caused by embedding of the watermarks. In accordance with the invention, watermarks protection of the copyright for desired data are embedded in DC component domains of wavelet-transformed domains. In accordance with the invention, embedding of watermarks in a target image corresponding to a target domain in which the watermarks are to be embedded, is achieved by generating a data stream of the watermarks in accordance with a key value selected by the user, generating index information representing positions where the watermarks are to be embedded, in accordance with a key value selected by the user, and reflecting the watermark data stream on data values of pixels in the target image at the positions based on the index information.